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## THE FUNCTION OF THE UNIVERSITY IN THE TRAINING OF SECONDARY TEACHERS.

### I

IN the days when "pedagogue" was a term of reproach rather than of respect, the instruction of the young must have been thought to require only the most mediocre talents. The business of education was founded then, as it is in some measure today, upon the widespread conviction that childhood and youth constituted a sort of period of probationary living during which evil propensities were to be eradicated. Following upon such a theory teaching would consist largely in the suppression of spontaneous activities—in the negation of natural tendencies; and he would be a successful instructor who possessed physical strength sufficient for the discharge of his principal duties. But in the evolution of the race this conception of the function of the teacher has been gradually superseded by another which has already found lodgment in the minds of the majority of intelligent men. Pestalozzi, Froebel, and their disciples vigorously proclaimed a doctrine entirely new in their day—that education must supply suitable nutrition for and so foster intellectual and moral development; it must fashion the character of the individual in the most generous sense, conferring upon him the inclination and the ability to be of efficient service to himself and so to the social whole. That he may be competent to administer the most nourishing mental foods in the proper quantities, at the right season, and suited to the tastes of his children, the teacher should not only have thoroughly mastered the subjects he is to employ but he should have joined to these acquisitions others relating to the native form and constitution of the minds he is to model. He must have studied the being to be taught, as well as the stuff he is to teach, else he cannot happily accomplish the adjustment the one to the other, which alone will make his tuition successful.

The proposal to add human nature studies to academic ones, so-called from ancient times, did not upon first appearance meet

with a cordial greeting from either the educational world or the public outside. It gained a hearing in our own country in Massachusetts in the early part of the nineteenth century, thriving but poorly, however, for a half dozen decades. Throughout this experimental period, though, the virtue of special training for those who were to instruct youth was forcing itself upon the attention of people, and about 1860 it received merited recognition and endorsement in the success of the Oswego Normal School. From this point the doctrines of the new faith spread rapidly in every direction until in our day the belief in the need of professional equipment on the part of the teacher is firmly intrenched in the mind of the civilized world, and the normal school has been established everywhere to carry this idea into practical effect as it relates to the primary and grammar grades of the educational system. Some commonwealths, notably New York, have decreed that no person shall teach in the elementary schools who has not passed a year as the minimum in the study of education, and a plan is already afoot to extend this requisition to instructors in the secondary schools; an omen of much significance, presaging as it does the time not afar off when the school of whatever grade will be regarded as the most potent for good or ill of the social forces, and when only one trained for this particular service in respect alike of scholarship and special knowledge and skill can be intrusted with the tremendous responsibilities of conducting its work.

The view maintained at present by those most competent to form an opinion regards some acquaintance with the history, science, and art of education as essential for teaching alike in the elementary and the secondary school. The Committee of Fifteen reporting upon the training of secondary teachers rightfully declares that "If college graduates are put directly into teaching without special study and training, they will teach as they have been taught. The methods of college professors are not in all cases the best, and if they were, high-school pupils are not to be taught nor disciplined as college students are. . . . Success in teaching depends upon conformity to principles, and these principles are not a part of the mental equipment of every

educated person." But it is well known that teachers in the upper ranks have in the past and do in the present come to their great work little adorned with professional erudition or interest. As Mr. Fitch said a few years since in commenting upon the situation in England, higher grade teachers have the same attitude now toward the study of education that elementary teachers had a century ago.

This unfortunate condition of affairs has been much lamented over in the public prints during the past few years; and what follows as citations from the Report of the Board of Education of Connecticut, made to the general assembly of that state last year after a detailed and painstaking inquiry into the conditions of the high schools, would doubtless be found typical of that which could be made after corresponding investigations in other communities. The report proceeds to say that "graduates of colleges, fresh from their books, apply, fortified with recommendations from the president or professors, purporting to show that the holders have been faithful, have attained a high rank in scholarship, and have traits of character which are sure to make them teachers. . . . The students thus recommended are often really strong in their college subjects, and particularly qualified in some special branch. None of them are acquainted with the philosophy or history of education, and they are not prepared to teach any subject.

"Often new teachers are introduced to supply vacancies. They have not been tested as to what they know and the application of it in teaching. They have not had any practice or training designed to give them a firm and sure grasp on the matters which they pretend to teach. . . . The principals do not wish to be saddled with the care of novices, if they are qualified to guide them. Thus the novices do not have the advantage of observing for a time an experienced teacher, and making a start under his guidance. . . . These beginners obtain, at the expense of the scholars, training in teaching. No other people in the world are so cruel to their children.

"The question whether teachers are giving themselves with true professional pride and energy to the work is not easy to answer. There was sometimes, though not often, exhibition

of the professional enthusiasm and pride which proceeds from genuine appreciation of, and interest in, the subject and the individuals of the classes. In too many cases there was manifest that asperity which results from mistaken notions of dignity or from imperfect digestion.

"In not more than three or four schools was real teaching, as distinguished from examination, found. Usually a lesson is given, consisting of so many pages or so many examples; the recitation hour is occupied in finding out whether this lesson so given has been learned. A lesson in algebra is assigned, say twelve examples on the thirtieth page, and the recitation hour is occupied with finding out whether the scholar has 'done' them. In a recitation in history the lesson consisted in part of the list of Roman emperors in order from Augustus to Trajan, and the only question possible was whether the right succession and the years were correctly given.

"There is no opportunity for skill except in questioning. This questioning, if mere questioning or constant examination be teaching, was often without preparation and aimless. It sometimes hit the mark and sometimes did not. It is always suggestive of the man who went out to kill a bear and hit a calf. There is little evidence of preparation on the lessons. In Latin classes taught by experienced teachers there was evident as much preparation as results from going over a subject year after year; and, if eternal examination on a definite line be teaching, the best teaching was found in the Latin classes."

Thus, without minimizing the unhappy consequences of deficient scholarship, which are indeed serious in some parts of the country, still, regarding things as they at present exist in most places, the chief defect in the preparation of college-trained persons for teaching in the secondary school or beyond is seen to be the almost utter lack of instructional knowledge, interest, and experience under wise criticism, which results too often in there being less genuine teaching in the high school than in any of the grades below it. The situation here depicted is a really serious one, and until remedied by greatly improving the teaching power of college candidates we must continue to have in high-school

positions persons who have not pursued their academic studies beyond the normal school, which, speaking generally, is not at all prepared and does not desire to undertake this advanced work. But even if college students designing to teach had desired to make decent preparation therefor, they could not until recently have found adequate opportunities in universities anywhere, and they can find these even yet in not more than a half dozen institutions, although the facilities in our higher seats of learning for the study of education, particularly in its scientific and concrete aspects, are being multiplied every year, and the number of students availing themselves of these advantages is increasing with marked rapidity. In 1890 there were reported to the Commissioner of Education 3414 students in 114 universities and colleges pursuing courses of study designed for the training of teachers. In 1895 the list of institutions had increased to 192 and the number of students to 6402. In the larger proportion of these cases, however, the educational studies were fragmentary and entirely theoretical, the professor of philosophy frequently discoursing a few times a year in a highly abstract and learned manner upon pedagogical themes, although twenty-seven universities reported having regularly organized departments of pedagogy, with courses of study extending over four years and leading to degrees equivalent to first degrees given in other departments. In a few instances postgraduate courses were offered, and in all attention was paid not alone to the history, theory, and philosophy of education, but methods of instruction and school organization were considered as well.

This developing consciousness of a need for the study of education by secondary teachers and college instructors has led, in recent years, to the establishment of independent schools of pedagogy and normal colleges. While facilities of whatever sort for the training of higher grade teachers are, considering the exigencies of the situation, to be hailed with delight wherever and whenever they make their appearance, yet in view of the needs of those who train young men and women, who should be men among men, in sympathy with the varied interests of the community, broad in culture and catholic in opinion, capable

of taking an important part in social functions and directing social activities—considering these obligations, it seems apparent that the instructor's training should be secured in universities, the home of all activities, the foster-mother of all interests, the best representative of cosmopolitan life. When the teacher's studies are pursued in independent endowments, where he sees and hears nothing but what has concern with his special calling, and where all the minds he comes in contact with are running abreast of one another in the same groove—in such an environment he is only too apt to become a pedagogue indeed, such an one as has supplied Shakespeare, and Swift, and Pope, and many another satirist with the *motif* for some of their keenest jests. It would not be of so much account whether the teacher was cut on a generous or meager plan if it were not that his attitude toward things has such a tremendous, almost immeasurable influence upon the tide of life of rising generations, elevating or depressing as his own is exalted or narrowly limited, instilling into the minds of the young, just and reasonable, or bigoted and erroneous views of varied political and social interests, religion, and the like. And the one effective way to insure breadth in the teacher is to keep him during his formative period in an environment where things are built on generous foundations—the university, which, of all social institutions, is or ought to be, the most liberal and comprehensive.

## II

We need on the part alike of school men and of the public a juster and broader understanding of what educational studies in the university aim to accomplish, and a greater appreciation of their value to the instructor in the secondary school or elsewhere. A professor in one of our great universities recently expressed the opinion that it was not essential, in order to teach science in the high school, that one should have studied the principles and art of education. He urged the argument, that to have mastered the facts to be taught was in itself sufficient to give the candidate power to put them out again into the heads of his pupils—an ancient contention, and one

founded upon a false view alike of the way in which the mind puts off ignorance and adorns itself with knowledge, and of the large purposes of instruction in science or in other disciplines. Further expressions of the professor revealed the fact that he regarded the study of education as consisting of the parrot-like learning of pedagogical theories and devices for teaching, a chimera haunting the minds of many in academic circles even today. The normal schools have doubtless fostered this illusion, since in the indiscreet years of their youth they magnified to such proportions the petty details of schoolroom methods that the foundation principles were in considerable measure obscured. But for the most part these institutions have outgrown this formal stage in their evolution; at any rate the studies which engage the attention of the university student relate in the first instance to the method of human development, seeking to acquire a sort of natural history of the unfolding mind, and to the principles of training growing out therefrom. It is recognized that the process of maturing proceeds according to laws, which should be consulted so far as definitely known, alike in the selection of subjects to be taught and in the order and manner of presenting them. Modern researches in the biological sciences have established the important doctrine that every individual recapitulates physically in sequence, at least in a general way, up to the point occupied by his particular species in the scale of life the principal characteristics of the phylogenetic series; and it has been shown further that certain influences hasten this process, while others retard it, and even prevent the individual in some instances from passing clear through the lower orders, bringing him into life thus unformed, or as we say, deformed. Much evidence from many sources is constraining us in these times to the conviction that the child must reproduce within himself the ancestral record not only physiologically, but he must live through again in some degree, be this great or small, the mental experiences of his predecessors in racial history. And, as in embryological development, untoward influences may lead to arrest in the ascent of the genealogical tree, so in the child's mental growth, we are realizing more forcibly than ever that unwise



treatment may cause him to stop upon some platform lower than that which he was designed by nature to attain. Is it not of supremest consequence that the intending teacher should familiarize himself with these primary laws of development to the extent that they are definitely understood, so that in his training he may have his course guided by them to the greatest possible degree?

And it seems of particular account that the instructor in the secondary school and college should study earnestly the principles of mental development, considering that the epoch in an individual's career occupied substantially by the high school and early college course is marked by the most significant and vital phenomena. So great are the spiritual transformations which are now wrought in the lives of youth that many have regarded these events as constituting in truth a second birth hardly less momentous than the first. There is no people so benighted but that they recognize in adolescence the greatest crisis in the process of maturing; and nature has taught them to fill this period with religious ceremonies and practices which it is hoped will impress the cardinal virtues of courage, honesty, and obedience upon blossoming manhood and womanhood. This is a season of both physical and mental unrest, of incessant change in ideals, of the advent of a great multitude of strange energies and emotions that need the most careful direction, of the ready formation of settled convictions which persist throughout adult life; considering these and other things, how great is the necessity for the keenest insight on the part of those who are charged with the responsibility of guiding lives through this dangerous pass connecting childhood and maturity! Most of us little appreciate how often common sense with its rough-and-ready methods has entailed lasting injury upon the supersensitive lives of adolescent boys and girls. A group of fifty mature university students, many of whom had themselves been teachers, recently wrote detailed reminiscences of their secondary school and early college experiences; and in nearly all of them one may read that instructors often did not understand their pupils; that they were not sympathetic toward them when sympathy would have been

an inestimable blessing. And again, much of the work inspired no interest, and so added little to nor changed the swift current of adolescent life.

What studies and methods of presenting them are best suited to nourish the expanding soul of the adolescent boy and girl so that it may burst its shell of egoism and emerge into the world of altruism? What responsibilities should be laid upon youth at this critical period? How far should natural propensities be indulged, and how may native instincts best be converted into higher spiritual attributes? Are there fundamental differences in individual pupils which manifest themselves particularly at this time, and if so, how should each be dealt with according to his capacities and greatest needs, that we may so fashion his talents as best to promote the well-being of himself and of his fellow-men? What are the mental and physical effects of cerebral fatigue, and what the precautions to be observed regarding it, especially with adolescent students? How shall we direct the silent forces of suggestion, so that they may be incessantly at work heightening rather than depressing the tide of life? These questions and a score of others of first importance press for solution upon every teacher of older as of younger pupils; and how may they be wisely solved by those who have no other basis for judgments than the indefiniteness of common sense and the blindness or tradition and prejudice? Can training in the high school or college ever be made most effective if they who have it in charge are wholly destitute of that special knowledge which alone can give critical and just appreciation of actual situations, and of the use of instrumentalities to effect reform? Has science nothing to contribute to the rational settlement of these, the most important problems affecting the well-being of humanity, individually and collectively? Untutored instinct will pass them all unnoticed for tradition has not accorded them great prominence. It is only after such careful study as is pursued in other departments of science that one's mental vision apprehends these elusive phenomena, and discerns how to deal with them; just as the richest beauties of the flower remain hidden forever to the sight of one untrained

to see them though he has had at his feet for all the years of his life the abundance and profusion of nature.

It needs to be mentioned here, but perhaps not argued, that the candidate for the privilege of instructing youth of any age, having diligently pursued investigations relating to human development and to the science of education founded securely thereupon, should have seen the doctrines he has thus acquired tested and applied in actual practice during his probationary period; not simply look at teaching, it should be said, but study it with such critical analysis as the physicist studies electricity, for instance, or the embryologist studies the phenomena of cell multiplication. He should himself try his hand at this in order that he may be aided by those who have been successful before him, and who may be of service to him by pointing out wherein his practice is not in harmony with his theory and suggesting how improvements may be made. It is surely a crude, sorry way, and one entirely out of harmony with present-day methods in other walks of life, to turn loose upon youth at a time when they need the wisest guidance raw, undisciplined tutors, who it is hoped will ultimately acquire skill by lawless experimentation upon innocent subjects. It is true, of course, that even after elaborate professional study one may not be a fit guide for youth if nature has not been generous in her first gifts to him; but in any event, whether thus favored or not, he will be more efficient in proportion as he has developed and improved upon native endowments.

### III

This thorough study of teaching in all its aspects, which is leading naturally to the instituting of special schools in the universities, will not only insure a more excellent quality of instruction in the higher phases of education; it will in addition exert a beneficial influence upon the whole process of education from start to finish. That the university may be prepared to grapple intelligently with the problems involved in the conduct of the more advanced grades of schooling, it must become acquainted with and devote itself to a solution of those found in the primary grades. In short, it should and will bring to the study of

education as a whole both the results of related sciences and their methods of investigation so far as suited to this special purpose ; and then guided by the light reflected from the history of educational experimentation in the evolution of the race, it will address itself to the task of continually extending and making more definite and certain the principles in view of which the processes of human culture must ever proceed.

When one reflects upon it, one cannot fail to become impressed with the negligence which appears to have been shown in years past respecting this matter. That questions of so great magnitude and importance should be referred for discussion and settlement to untrained and incompetent persons in great part ; that the science dealing with these vital things should consist largely of personal opinions ; that there should be no broad scientific view of education comprehending the process of human development as a whole, and showing how branches of instruction throughout the entire course of training should be related to each other as best ministering to the needs of pupils at particular stages in their progress toward maturity ; that these profound problems which affect the welfare of mankind so tremendously should have been so lightly regarded in the highest seats of learning, is not only a matter for regret but for wonder, especially when one considers that in almost every other field of nature and human nature scientists have been patiently investigating in the universities for a considerable period, and have amassed large bodies of exact data from which the industrial and other arts draw their nourishment. Is it not time that the university should devote a portion of its energy to the investigation in a scientific manner of these educational questions, banishing mere guessing from the pedagogical workshop ?

The events of the last few decades have greatly deepened the conviction, by no means novel, that education, like other things, is in a process of evolution. The most vital transformations have occurred alike in the subjects of instruction and in the modes of presenting them, and at no time have the scenes been shifted so rapidly as they are at the present moment. But this development has gone on quite apart from any influence

from the higher institutions. All that has been done must be credited to individual schoolmasters and to the normal schools. But because of a want of intelligent and sympathetic coöperation from some high authority which should have leisure and opportunity to go deeply into the science and art of education, progress in teaching has not been uninterrupted or uniform in its various departments. There has been no distinctly investigating body, no institution which has been charged expressly with the responsibility of advancing the science upon which education should be based, and experimenting with regard to the application of its principles under particular conditions. But the university school of education now proposes to undertake this neglected work. On the side of theory it aims to search over those sciences that treat of the development of life in any form, and extract such portions as relate to the normal growth of the child. It will survey the various fields of psychological research and gather available contribution from each for a science of educational psychology which shall constitute the secure foundation upon which the method of education shall be built; and which shall also, when supplemented and enriched by broad studies in history, philosophy, ethics, and sociology, determine in a rational manner the materials which shall be employed for the instruction of the child at each stage in his progress through the schools.

And it will not simply glean over, in search for foundation laws and principles, what investigators are discovering in other fields, but it must have distinct problems of its own relating to the determination of the materials and processes of education; and in the study of these it will employ the methods of exact science, so far as these are adapted to the study of phenomena pertaining to human nature. Education is sorely in need of investigations of this character; and unless the university, which is founded to promote all knowledge, can undertake them, where may one look for a benefactor? The normal schools cannot assume the responsibilities of contributing to the science of education in any important sense; circumstances of organization, equipment, and immediate demands from the community require

that they confine their efforts almost wholly to imparting instruction in what is already known. They must look to some source outside themselves for the exploration and elucidation of new truths; then taking these, they will seek to have them realized practically in the schoolrooms of the country, an undertaking of such overwhelming magnitude and consequence that they ought not to be expected or to attempt to do much more.

Again, the scientific study in the university of education in all its aspects will have a reflex influence upon the character and effectiveness of its own instruction. Consider the struggle which is now taking place in the higher seats of learning over the elaboration of a curriculum of studies adapted to the needs of the students who, with varied interests and talents, seek their aid. How shall the intricate problems surrounding such an undertaking be rationally solved? If you consult the specialist in some branch he will magnify the virtues of his own subject until it assumes such proportions that everything else appears in comparison exceedingly diminutive; and he will defend his judgment with such ardor that more often than not a course of study shows in the survival and relative importance of its elements the ratio of fighting powers in their several professors. But there is needed no argument to demonstrate that one who understands algebra or history in its internal relations does not on account of this learning alone comprehend precisely what relative value it has, and so what emphasis it should receive in training youth for the different offices of life. The world now generally recognizes that when judgment is to be passed upon any matter of importance, a specialist must be summoned and his testimony received; mere nonexpert opinion is not rated highly. So in the settlement of the various difficulties respecting the university curriculum and modes of instruction, the school of education should, because of its competency, have an authoritative voice. It should have in its view the whole span of school instruction. It should have studied profoundly into the history of educational practice, tracing the effects upon individual and national life of the manifold systems which have had a trial in the course of the evolution of human society; it should hold in its possession, too, all that

is definitely established respecting the nature of childhood and youth, inquiring especially into the predominant characteristics of the stage which has been reached by the average college student; and it should as a result of such particular study, and with the aid of the specialist, be able to say, with more of justice and reason than has been exercised in the past regarding these matters, what is the comparative worth of mathematics, science, history, and other branches of culture in disciplining the mind in a general and in a particular way, and in fashioning character to a noble model.

M. V. O'SHEA

UNIVERSITY OF WISCONSIN,  
Madison, Wis.